

IN THE CLAIMS:

Please amend claims 1 and 3, as shown in the complete lists of claims that is presented below.

1. (currently amended) A capacitor-coupled power supply apparatus comprising: positive-side and negative side inductors respectively inserted in series at positive and negative sides of lines for guiding a direct current supplied from an alternating current power supply through a rectification circuit, or a direct current supplied directly from a direct current power supply;

positive-side and negative-side capacitors respectively inserted in series between the positive-side inductor and a load, and between the negative-side inductor and the load; and

a switching element connected between a coupling point of the positive-side inductor with the positive-side capacitor, and a coupling point of the negative-side inductor and the negative-side capacitor,

wherein a ratio in capacitance inductance of the positive-side inductor to the negative-side inductor is a reciprocal number of a ratio in capacitance of the positive-side capacitor to the negative-side capacitor.

Claim 2 (canceled).

3. (currently amended) A capacitor-coupled power supply apparatus according to Claim 1, wherein the positive-side inductor and the negative-side inductor are the same in capacitance inductance as each other, and the positive-side capacitor and the negative-side capacitor are the same in capacitance as each other.

4. (previously presented) A capacitor-coupled power supply apparatus according to Claim 1, wherein a rectification circuit and a smoothing circuit are connected to output ends of the capacitors.

5. (original) A capacitor-coupled power supply apparatus according to Claim 4, wherein smoothing inductors are respectively inserted in the positive-side and negative-side lines of the rectification circuit.

6. (previously presented) A capacitor-coupled power supply apparatus for supplying power at first and second power output terminals, comprising:

power input means for supplying power at first and second power input terminals; a first series circuit connecting the first power input terminal to the first power output terminal, the first series circuit including a first inductor and a first capacitor in series with the first inductor;

a second series circuit connecting the second power input terminal and the second power output terminal, the second series circuit including a second inductor and a second capacitor in series with the second inductor; and

a switching element connected to a first coupling point in the first series circuit and a second coupling point in the second series circuit,

wherein the first inductor has an inductance L1, the second inductor has an inductance L2, the first capacitor has a capacitance C1, the second capacitor has a capacitance C2, and L1/L2 is substantially the same as C2/C1.

7. (previously presented) The apparatus of claim 6, wherein the first inductor is disposed in the first series circuit between the first power input terminal and the first coupling point, and the first capacitor is disposed between the first coupling point and the first power output terminal.

8. (previously presented) The apparatus of claim 7, wherein the second inductor is disposed in the second series circuit between the second power input terminal and the second coupling point, and the second capacitor is disposed between the second coupling point and the second power output terminal.

9. (previously presented) The apparatus of claim 8, wherein L1 is substantially equal to L2, and C1 is substantially equal to C2.

10. (previously presented) The apparatus of claim 6, further comprising a smoothing circuit connected to the first and second series circuits.

11. (previously presented) The apparatus of claim 10, wherein the smoothing circuit comprises an inductor in the first series circuit and a capacitor connected between the first and second series circuits.

12. (previously presented) The apparatus of claim 6, further comprising a diode connected between the first and second series circuits.

13. (previously presented) The apparatus of claim 6, wherein the switch is repeatedly opened and closed at a rapid rate.

14. (previously presented) The apparatus of claim 13, wherein the switch has a chopping frequency of around 200 KHz.

15. (previously presented) The apparatus of claim 6, wherein the power input means comprises a DC source.

16. (previously presented) The apparatus of claim 15, wherein the DC source comprises a battery.

17. (previously presented) The apparatus of claim 6, wherein the power input means comprises means for rectifying AC power.